

MONTHLY WEATHER REVIEW,

OCTOBER, 1877.

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

INTRODUCTION.

The present REVIEW for the month of October depends upon official data received up to the 14th of November from the Canadian Meteorological Office; the United States Navy; the Army Post Surgeons; the Voluntary and Regular Observers of the United States Signal Service. The most interesting features of the month have been: *First*, The severe storms Nos. I and VII. *Second*, The general excess of rain-fall, especially in the Gulf States. *Third*, The continuation of high temperatures and low pressures, except in Canada. *Fourth*, The very low water in the upper Ohio and Mississippi. *Fifth*, The heavy snows and early winter at Pike's Peak and other high stations in the Rocky Mountains. *Sixth*, Infrequency of thunder and lightning and auroras. *Seventh*, The absence of frosts and the remarkably mild autumn weather, allowing second crops to ripen in some localities. *Eighth*, Almost entire absence of solar spots.

BAROMETRIC PRESSURE.

In General.—The general distribution of atmospheric pressure for the month is shown by the isobars on map No. II, from which it appears that the area of highest pressure, or that included within the isobar of 30.05, covers the Middle and South Atlantic and interior of the Gulf States, and the area of lowest pressure is in the extreme Northwest. In the Octobers of 1873, 1874, 1875 and 1876, the highest mean pressure existed in the Lower Mississippi valley, but for October of this year it is found extending over eastern Tennessee and the Carolinas. On the average the pressures are below the normal in all sections, except in Canada and the northern portions of the Lake region and New England.

Barometric Ranges.—The general range of pressure (as reduced to sea-level,) is shown by the following table, which gives the highest and lowest pressures at the centres of high and low areas, and from which it appears that for the whole country a range of 1.42 inches has been recorded:

LOW AREAS.				HIGH AREAS.			
No.	Location.	Date.	Minimum Pressure.	No.	Location.	Date.	Maximum Pressure.
I	St. Lawrence valley.....	Oct. 1st, 7:35 a. m.....	29.73	I	Middle Atlantic coast.....	Oct. 1st, 7:35 a. m.....	30.25
II	Northern Florida.....	Oct. 3rd, 7:35 a. m.....	29.19	II	Gulf of St. Lawrence.....	Oct. 3rd, 7:35 a. m.....	30.27
III	Canada.....	Oct. 4th, 7:35 a. m.....	29.35	III	Cape Breton.....	Oct. 8th, 7:35 a. m.....	30.61
IV	Lake Huron.....	Oct. 8th, 4:35 p. m.....	29.33	IV	Eastern Tennessee.....	Oct. 9th, 7:35 a. m.....	30.24
V	Lake Huron.....	Oct. 10th, 4:35 p. m.....	29.66	V	East Tennessee & N. C.....	Oct. 16th, 7:35 a. m.....	30.40
VI	Kansas.....	Oct. 12th, 4:35 p. m.....	29.50	VI	Canada.....	Oct. 17th, 7:35 a. m.....	30.32
VII	Cape Breton.....	Oct. 22nd, 11 p. m.....	29.51	VII	Manitoba.....	Oct. 19th, 7:35 a. m.....	30.63
VIII	Dakota.....	Oct. 23rd, 4:35 p. m.....	29.44	VIII	North Carolina coast.....	Oct. 29th, 7:35 a. m.....	30.28
IX	Dakota.....	Oct. 25th, 4:35 p. m.....	29.51	IX	Oregon.....	Oct. 29th, 7:35 a. m.....	30.48
X	North Carolina coast.....	Oct. 26th, 11 p. m.....	29.61				
XI	St. Lawrence valley.....	Oct. 28th, 4:35 p. m.....	29.32				
XII	Canada.....	Oct. 31st, 7:35 a. m.....	29.65				

The local barometric ranges have been as follows: *Large Ranges*—Atlantic City, 1.22; Barnegat, 1.23; Bismarck, 1.27; Fort Whipple, 1.25; Washington, 1.21. *Small Ranges*—Brackettville, 0.65; Cheyenne, 0.52; Corsicana, 0.70; Denison, 0.69; Denver, 0.59; Eagle Pass, 0.65; Fort Gibson, 0.67; Fort Sill, 0.69; Galveston, 0.52; Indianola, 0.53; Key West, 0.35; La Crosse, 0.69; Memphis, 0.65; Mason, 0.65; Nashville, 0.70; Pikes Peak, 0.63; Red Bluff, 0.36; St. Paul, 0.68; Salt Lake City, 0.50; Santa Fe, 0.48; Shreveport, 0.61; Sacramento, 0.33; San Antonio, 0.53; Vicksburg, 0.70; Visalia, 0.36; Winnemucca, 0.45.